

thousand proteins, from about one hundred to about four thousand proteins, or from about one hundred to about one thousand proteins.

4. The composition of claim 1, wherein the solid support contains proteins which share sequence identity with at least one protein from about two to about two hundred, from about two to about four hundred, from about five to about two hundred, from about ten to about two hundred, from about twenty to about two hundred, from about thirty to about two hundred, or from about forty to about two hundred different pathogenic agents.

5. The composition of claim 1, wherein one or more of the pathogenic agents is in a class selected from the group consisting of a human immunodeficiency virus, a *Mycobacterium*, a *Chlamydia*, a *Shigella*, a *Treponema*, a *Rickettsia*, a hemorrhagic fever virus, or a human papilloma virus.

6. The composition of claim 5, where the *Mycobacterium* is of a species selected from the group consisting of *Mycobacterium tuberculosis*, *Mycobacterium szulgai*, *Mycobacterium smegmatis*, *Mycobacterium marinum*, *Mycobacterium bovis*, *Mycobacterium caprae*, *Mycobacterium simiae*, *Mycobacterium terrae*, *Mycobacterium neoaurum*, *Mycobacterium simiae*, *Mycobacterium avium*, *Mycobacterium parascrofulaceum*, *Mycobacterium gordonae*, and *Mycobacterium leprae*.

7. The composition of claim 1, wherein the proteins are affixed to said solid support via covalent linkage to said support.

8. The composition of claim 1, wherein said solid support comprises a material selected from the group consisting of nitrocellulose, diazocellulose, glass, polystyrene, polyvinylchloride, polypropylene, polyethylene, polyvinylidene fluoride and nylon.

9. The composition of claim 1, wherein said vectors are affixed to said solid support in such a way as to form an array.

10. A method for determining immune status of an individual with respect to three or more pathogenic agents, the method comprising:

- (a) obtaining a sample from the individual,
- (b) contacting the sample with a solid support, wherein the solid support contains proteins, each of which shares at least 10 amino acids of sequence identity with different proteins derived from one or more pathogenic agent, and wherein the proteins are each located in separate locations on a solid support, and
- (c) identifying the binding of antibodies to locations on the solid support, thereby determining immune status.

11. A method for identifying one or more molecule which induces an immunological response in an individual, the method comprising:

- (a) either (i) contacting the individual with a pathogenic agent or one or more biological material from the pathogenic agent or (ii) selecting the individual on the basis of past exposure to the pathogenic agent,
- (b) obtaining a sample from the individual,
- (c) contacting the sample with a solid support, wherein the solid support contains proteins, each of which shares at least 10 amino acids of sequence identity with different proteins derived from one or more pathogenic agent, and wherein the proteins are each located in separate locations on a solid support, and
- (d) identifying the binding of antibodies to locations on the solid support, thereby identifying one or more molecule which induces an immunological response in the individual.

12. The method of claim 11, wherein at least one of the one or more molecule is a protein.

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